APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,921	09/26/2003	David Woodhouse	0113715.00142US1	9463

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WILMERHALE / RED HAT, INC.
60 STATE STREET
BOSTON, MA 02109

EXAMINER
WOOD, WILLIAM H

ART UNIT	PAPER NUMBER
2193	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
	10/672,921	WOODHOUSE, DAVID
Office Action Summary	Examiner	Art Unit	
	William H. Wood	2193	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 March 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claims 1-20 are pending and have been examined.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05 March 2007 has been entered.

Claim Rejections - 35 USC § 102

1.　　　The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.　　　Claims 1-3, 5, 7-9, 11-13, 15-16 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by "Efficient Algorithms for Sorting and Synchronization" by Andrew **Tridgell**.

Claim 1

Tridgell disclosed a method for updating a seed file to match a target file _(page 49-69, chapter 3, rsync)_, said method comprising:

generating target file checking data for one or more blocks of said target file _(page 53-54, section 3.2.4)_;

storing at least a portion of said target file checking data in a cache, wherein the cache is part of a storage device _(page 101-102; hardware includes caches and RAM, which are used (ie store values) to speed processing)_;

receiving seed file checking data corresponding to one or more blocks of said seed file _(page 50, element 1, section 3.2; page 54-55, section 3.2.5)_;

comparing said seed file checking data with said target file checking data to identify differences in blocks of said seed file and blocks of said target file _(page 55-58, section 3.2.6)_; and

transmitting information for revising seed file blocks which are different from target file blocks such that said seed file blocks match said target file blocks _(page 58, first paragraph of section 3.2.7)_.

Claim 2

Tridgell disclosed the method of claim 1, wherein said target file checking data and said seed file checking data each comprise weak level checking data and strong level checking data, and wherein said comparing comprises comparing said weak level checking data and next comparing strong level checking data

only if a match is identified in said weak level checking data *(page 53-55,*

section 3.2.4 and 3.2.5; in particular page 54, first paragraph under section

3.2.5).

Claim 3

Tridgell disclosed the method of claim 1, wherein said target file checking data

and said seed file checking data each comprise a 32-bit checksum and a 128-

bit checksum *(page 53-55, section 3.2.4 and 3.2.5).*

Claim 5

Tridgell disclosed the method of claim 1, wherein said target file checking data

and said seed file checking data each comprise a checksum *(page 53-55,*

section 3.2.4 and 3.2.5).

Claim 7

Tridgell disclosed the method of claim 1, further comprising decompressing

said target file prior to said generating *(page 76, section 4.4.1, second*

paragraph).

Claim 8

Tridgell disclosed the method of claim 1, wherein said seed file and said target

file are decompressed prior to said generating, wherein said seed file blocks are

revised in accordance with said transmitted information to match said target

file blocks, and wherein said revised seed file blocks are recompressed after

revising *(page 76, section 4.4.1, second paragraph)*.

Claim 9

Tridgell disclosed the method of claim 8, wherein said seed file comprises a

compressed payload, previously separated from a compound file, and wherein

said revised seed file is appended to a header file after said recompressing to

constitute a revised compound file *(page 76, section 4.4.1, first and second*

paragraphs; compressed file formats).

Claims 11-13, 15-16 and 18-20

The limitations of claims 11-13, 15-16 and 18-20 correspond to claims 1, 2, 5,

8 and 9 and therefore are rejected in the same manner.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived by
> the manner in which the invention was made.

4.   Claims 4, 6, 10, 14 and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over "Efficient Algorithms for Sorting and Synchronization" by

Andrew **Tridgell**.

Claims 4 and 17

Tridgell disclosed the method of claim 1, wherein said target file checking data

and said seed file checking data each comprise weak level checking data and

strong level checking data, and wherein said storing comprises storing said

weak level checking data associated with said target file *(page 53-55, section

3.2.4 and 3.2.5; in particular page 54, first paragraph under section 3.2.5).*

Tridgell did not explicitly state *and storing only said strong level checking data*

associated with said target file expected to match strong level checking data

associated with said seed file. However, **Tridgell** demonstrated that it was

known at the time of invention to use the strong level checking data sparingly

(*page 53-55, section 3.2.4 and 3.2.5; in particular page 54, first paragraph under*

section 3.2.5). It would have been obvious to one of ordinary skill in the art at

the time of invention to compute and thus store strong level data only as

anticipated as being needed as suggested by **Tridgell**'s own teaching. This

implementation would have been obvious because one of ordinary skill in the

art would be motivated to save in expensive computation and time by

"preventing excessive use of the strong signature algorithm".

The limitations of claim 17 correspond to claim 4 and therefore are rejected in the same manner.

Claim 6

Tridgell did not appear to explicitly state *wherein said target file checking data stored in a cache are used with multiple updating requests received from a plurality of clients*. However, **Tridgell** demonstrated that it was known at the time of invention to provide information to multiple clients (page 80, section 4.5, first three paragraphs). It would have been obvious to one of ordinary skill in the art at the time of invention to implement the rsync system with a plurality of clients as found in the *web* as found in **Tridgell**'s own teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated to make efficient file/data synchronization available the network thus reducing latency.

Claims 10 and 14

Tridgell did not explicitly state *wherein said compound file and said revised compound file comport with an RPM Package Manager format*. Official Notice is taken that it was known at the time of invention to make use of RPM Package Manager format. It would have been obvious to one of ordinary skill in the art at the time of invention to implement the file/data synchronization system of **Tridgell** with RPM format. This implementation would have been obvious

because one of ordinary skill in the art would be motivated to provide a

standard tool end users are already familiar with for delivering files/data for

synchronization.

The limitations of claim 14 correspond to claim 10 and therefore are rejected in

the same manner.

Response to Arguments

5.   Applicant's arguments filed 05 March 2007 have been fully considered

but they are not persuasive. Applicant argues new limitation, "cache is part of

a storage device", is not disclosed by the cited prior art. This is not persuasive.

The CPU the cache is allegedly part of is a storage device: [1] because it stores

information, though briefly, through the normal operations of execution; and [2]

because it contains at least a cache, which clearly stores information.

Furthermore, the "device" which the cache is part of is in the overall hardware,

which contains other memories and RAM. Therefore, the CPU alone is a

"storage device" and the hardware ultimately containing the cache is a "storage
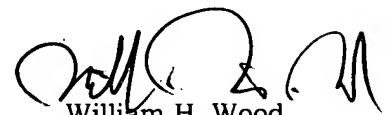
device".

Correspondence Information

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to William H. Wood whose telephone number is (571)-272-3736.
The examiner can normally be reached 10:00am - 4:00pm Monday thru Friday.

   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)-272-3756. The fax phone numbers for the organization where this application or proceeding is assigned are (571)273-8300 for regular communications.

   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained form either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR systems, see http://pair-direct.uspto.gov. For questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

   Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

William H. Wood
Patent Examiner
AU 2193
May 11, 2007